

### REMARKS

Claims 1 – 12 are pending in the application. Reexamination and reconsideration in view of the following remarks are requested.

### CLAIM REJECTIONS- 35 U.S.C. §103

Claims 1-3 are rejected as unpatentable over Sikes in view of Roustaei. Applicants disagree.

As pointed out by the Examiner, Sikes does not disclose "processing including an FPGA" as required by Applicants Claim 1. Instead, Sikes discloses as its processor 30 a 7804A-O processor card marketed by Pro-Log Corp. See Col. 7, lines 2-4. Sikes teaches away from incorporating a FPGA by using a standard control bus and a general purpose processor card. One skilled in the art would appreciate that the design and programming of a FPGA is complex and application specific rather than general purpose. Further, it would be unreasonable to expect success without undue experimentation when simply incorporating a FPGA with the control system taught by Sikes. Many specific circuits or modules would have to be altered.

Turning now to Roustaei, Roustaei discloses the use of a FPGA but in an application different from the "searching for color register marks printed on a paper substrate on a printing press" as claimed by Applicants. Roustaei teaches an optical scanner for reading optically encoded information such as bar code symbols. The optical scanners can be used in a fixed station or in a portable device. There is no teaching in Roustaei of the use of its optical scanner on a printing press. To the contrary, the optical scanner of Roustaei is used after the optical code has been printed on a product and to scan the product itself. Further, the optical scanner of Roustaei is intended to read the optically encoded information within the field of view of the scanner. There is no teaching in Roustaei as to "searching for color register marks". The Roustaei scanner is only a reader and decoder of the optical information, with no capability to search for the optically encoded marks. One of skill in the art would not turn to such an optical scanner for teachings of the use of an FPGA in a color registration system on a printing press.

Accordingly, Sikes and Roustaei do not render the invention in Applicants' Claim 1 unpatentable. Sikes teaches away from the use of an FPGA with the use of a general purpose

card. Use of an FPGA in the Sikes control system would not function without undue experimentation. Finally, there would be no motivation to combine the FPGA disclosed in Roustaei with the color registration system of Sikes. Allowance of Claim 1 is requested.

Claims 2 – 3 depend from Claim 1 and are therefore allowable for the same reasons as Claim 1, and also because they contain additional patentable subject matter, which, for the sake of brevity, is not discussed herein.

#### **CLAIM REJECTIONS- 35 U.S.C. §103**

Claim 4 is rejected as unpatentable over Sikes in view of Roustaei and further in view of Pierce. Applicants disagree.

Claim 4 depends from Claim 1 and is therefore allowable for the same reasons as Claim 1, and also because it contains additional patentable subject matter, which, for the sake of brevity, is not discussed herein.

#### **CLAIM REJECTIONS- 35 U.S.C. §103**

Claim 5 is rejected as unpatentable over Sikes in view of Roustaei and further in view of Siler. Applicants disagree.

Claim 5 depends from Claim 1 and is therefore allowable for the same reasons as Claim 1, and also because it contains additional patentable subject matter, which, for the sake of brevity, is not discussed herein.

#### **CLAIM REJECTIONS- 35 U.S.C. §103**

Claims 6 and 8-12 are rejected as unpatentable over Sikes in view of Roustaei and further in view of Pierce. Applicants disagree.

For the reasons set forth above with respect to Claim 1, Sikes and Roustaei are deficient in their disclosures, and Pierce does not cure the deficiency.

Further, Applicants Claim 6 requires "analyzing the image for the color register marks using an FPGA wherein the printed color register marks are found on the substrate within 5 pixels

revolutions". The Examiner has not pointed to prior art reference containing this limitation. Rather, the Examiner concluded that it would have been obvious for one of skill in the art to modify the system of Sikes to not only incorporate "the teachings of a printing press", but also to "arrange the camera assembly within the inking units so it is clear that the printed color register marks are found on the substrate within 5 plate revolutions". This finding of obviousness is unsupported for the following reasons.

First, such "incorporation" and "arrangement" of the Sikes system would require undue experimentation with absolutely no expectation of success.

Second, positionally arranging the camera assembly of Sikes within the inking unit would have no effect on finding the register marks within 5 plate revolutions. Applicants' claim requires analyzing the image within the time period of 5 revolutions of the printing plate.

Third, Applicants' arranging step of Claim 6 is not disclosed in any of the cited references.

Accordingly, Sikes, Roustaei and Pierce do not render the invention in Applicants Claim 6 unpatentable. Allowance of Claim 6 is requested.

Claims 8-12 depend from Claim 6 and are therefore allowable for the same reasons as Claim 6, and also because they contain additional patentable subject matter, which, for the sake of brevity, is not discussed herein.

#### **CLAIM REJECTIONS- 35 U.S.C. §103**

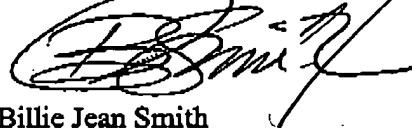
Claim 7 is rejected as unpatentable over Sikes in view of Roustaei and Pierce and further in view of Siler. Applicants disagree.

Claim 7 depends from Claim 6 and is therefore allowable for the same reasons as Claim 6, and also because it contains additional patentable subject matter, which, for the sake of brevity, is not discussed herein.

CONCLUSION

In view of the above remarks, allowance of pending Claims 1 – 12 is requested.

Respectfully submitted,



Billie Jean Smith  
Reg. No. 36,940

Docket No.: 077077-9143  
Michael Best & Friedrich LLP  
100 East Wisconsin Avenue  
Milwaukee, Wisconsin 53202-4108  
(414) 271-6560

X:\clients\077077\9143\A0639073.3

**RECEIVED  
CENTRAL FAX CENTER**

OCT 10 2003

**OFFICIAL**

